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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,180	03/06/2002	Robert Y. Greenberg	7293-21	8644

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EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,180

Applicant(s)

GREENBERG, ROBERT Y.

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19-25 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

This application has been examined. The claims 1-25 are pending. The examination results are as following.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 and 9-12, 15 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim (US patent 6,219,023).

Regarding claims 1 and 9, Kim discloses in figures 1 and 7, a display controller (20, figure 1) adapted to display image data received at an input vertical refresh rate on a display having a display vertical refresh rate (see a video signal converting apparatus converts a low-resolution from host into a different-resolution video signal capable displayed on the entire screen of a high-resolution, see abstract) comprising a failsafe enable circuit (see the two inverters 651, 652 which enable the read enable signals LMRE1 and LMRE2, see figures 7, 12, column 8, lines 39-41) adapted to generate a failsafe vertical refresh rate responsive to the failsafe enable signal, the internal vertical refresh rate being a predetermined fraction of the input vertical refresh rate(see table 1,

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see ratio resolution before and after conversion, and color signal RGB corresponding to 5 lines are change into color signals 8 lines, see column 5, lines 18-23).

Regarding claims 2 and 11-12, Kim discloses wherein the internal vertical refresh rate (see table 1) is provided to the display for displaying the image data at the internal vertical refresh rate; and an inherent the internal vertical refresh rate is always less than the display vertical refresh rate such that the image signals displayed on the display occupy less than a full vertical length of the display.

Regarding claims 4, 10 and 15, Kim discloses in figures 10, 12, 16, Kim discloses failse circuit comprises a flip-flop (725a-725c, figure 12) adapted to generate a first signal responsive to the input vertical refresh rate; an inverter (723a-723d) adapted to generate a second signal by inverting the first signal, a logic gate (724a-724c) adapted to generate the internal vertical refresh rate (see figure 12); a multiplexer (631-633, figure 16) adapted to provide the internal vertical refresh rate to an output terminal responsive to the failsafe enable signal.

Regarding claim 17, Kim discloses wherein the failsafe circuit includes a mode circuit adapted to generate a mode signal responsive to user I put indicative of one of a plurality of modes (see column 2, lines 57-62).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 13, 16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US patent 6,219,023) in view of Choi et al. (US patent 5,742,349).

Kim does not disclose wherein the internal vertical refresh rate is half the input vertical refresh rate. Choi et al. disclose a first refresh rate into a second data for a television monitor having a second slower refresh rate at a rate of no less than one half the rate at which pixel data is being received at the input port (see abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a second refresh rate at a rate of no less than one half the rate at which pixel data is being received at the input port as taught by Choi et al. into the system of Kim because this would receive the contents of memory are read out at a low rate which is half or slightly faster than half the VGA pixel rate (see Choi column 6, lines 31-33).

5. Claims 6-8, and 14, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US patent 6,219,023) in view of Faroudja et al. (US patent 6,222,589).

Regarding claim 6, Kim does not disclose wherein the internal vertical refresh rate is half the input vertical refresh rate. Faroudja et al. disclose two input vertical refresh rate pulses (60Hz) for every one of internal vertical refresh rate pulse (see figure 10, see frames period pull down ratio $3/2$, see column 9, lines 43-46). It would have been to one of ordinary skill in the art at the time the invention was made to provide the frames period pull down ratio $3/2$ as taught by Faroudja et al. in to the system of Kim because this would be used to optimize out put motion by minimizing differences between video frame periods (see column 9, lines 64-66).

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Regarding claim 8, Kim discloses a memory controller (600, see figure 3). However, Kim does not disclose an image scalar adapted to resize the image data stored in the memory. Faroudja et al disclose in figure 14, a scalar (20) provides control the display size (see column 11, lines 13-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement a scalar control the display size as taught by Faroudja into the display system of Kim because this would for controlling display size and positioning of the video display on the display monitor (see column 11, lines 13-17).

6. Claims 20-21, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US patent 6,219,023) in view of Imaiizumi et al. (2002/0158868).

Kim does not disclose wherein displaying includes displaying a compressed image on the display, and displaying a first input frame on an output frame and discarding a second input frame. Imaizumi et al. disclose in figure 1, includes displaying a compressed image on the display (see secondary compressing section image, see abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a compressed image on the display as taught by Imaizumi et al. into the system of Kim because this would be removed without artificial feeling in a reproduced image (see abstract).

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Allowable Subject Matter

7. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

None of the cited art teach or suggest that the failsafe circuit of claim 17, wherein the plurality of modes comprises a display first mode wherein a first frame is received during a predetermined interval is display on a single output frame while other frames received during the predetermined time interval are discarded; and display all mode wherein all frame received during the predetermined time interval are displayed on the single output frame as claimed.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kimnhung Nguyen
February 9, 2004

A handwritten signature in black ink, appearing to read 'R. Hjerpe', with a stylized, cursive script.

**RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**